IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applica	ant:	LOPRETE)	
Application No.:)	Group Art Unit: n/a	
Filed:		January 23, 2004)	Examiner: n/a
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Commi	top PATENT A issioner for Pa ox 1450 dria, VA 2231	. •		
		INFORMATION D	ISCLOSURE	<u>STATEMENT</u>
SIR:				
	The following	g are included with this	Information D	isclosure Statement:
[X]A.	PTO/SB/08			
[]B.	CERTIFIC (37 C.	ATION F.R. 1.97(c)-before fin	al Office Actio	n or allowance)
[] C .		E PAYMENT F.R. 1.97(c)-before fin	al Office Actio	n or allowance)
[] D .	PAYME			CITION FEE
	(37 C.F	R.1.97(d)-before issue	e fee payment)	
37 CFF	_	g are submitted in the a	bove-identified	l application in compliance with
[] I.	- '	y of each listed U.S. Paa)(2)(i)].	atent and U.S. I	Patent application publication
[X] II.	applic	-		published foreign patent and/or published foreign patent
[X]	a)	the English language		English translation if not te PTO-1449)[1.98(a)(3)];

- (b) U.S. counterpart patents or English language equivalents of the foreign patents or published foreign patent applications (see PTO-1449); and/or
- (c) a concise explanation of the relevance of the listed patents, publications or other information (see PTO-1449, foreign search report or other, attached), as it is presently understood by the person signing this disclosure, since no English translation is currently available [1.98(a)(3)].
- [] III. A copy of each listed publication, other than published foreign applications. For each listed publication [1.98(a)(2)]:
 - [] an English translation, if available, when the original publication is not in the English language (see PTO-1449)[1.98(a)(3)];
 - [] a concise explanation of the listed publications (see PTO-1449), as it is presently understood by the person signing this disclosure, since no English translation is currently available [1.98(a)(3)].
- [] IV. For any other listed information, a copy of the information or that portion which caused it to be listed (see PTO-1449)[1.98(a)(2)(iii)].
- Each listed U.S. Patent, Publication or other information that was previously cited by or submitted to the Office in a prior application, which application is relied upon for an earlier filing date under 35 U.S.C.§ 120 [1.98(d)].
- [X] VI. Copies of each listed U.S. Patent and U.S. Patent application publication are not being submitted herewith pursuant to a waiver of 37 CFR 1.98(a)(2)(i) by the USPTO on July 11, 2003 for applications filed after June 30, 2003.

This information is submitted in the above-identified application in compliance with 37 C.F.R.1.97 because:

- [X] 1. This information disclosure is submitted within three months of the filing date of the application, or before the mailing date of the first office action on the merits of the application [1.97(b)].
- [] 2. This information disclosure is submitted before the mailing date of a final action in this application under 1.113[1.97(c)] and the requisite statement or fee is provided (see items 6 or 7 below).
- [] 3. This information disclosure is submitted before the mailing date of a notice of allowance under 1.311 [1.97(c)] and the requisite statement or fee is provided (see items 6 or 7 below).

- []4. This information disclosure is submitted after the mailing date of a final action under 1.113 [1.97(d)] and the requisite statement and fee is provided (see items 6 and 8 below).
- This information disclosure is submitted after the mailing date of a notice of [] 5. allowance under 1.311, but before the payment of the issue fee [1.97(d)] and the requisite statement and fee is provided (see items 6 and 8 below).
- []6. This information disclosure statement is submitted with the statement required for items 2, 3, 4 or 5 above [1.97(c), (d), (e)]:
- I, , hereby state the following:
 - Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
 - No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this information disclosure was known to any individual designated in 1.56(c) more than three months prior to the filing of this information disclosure statement.
- This information disclosure statement is submitted with the fee of \$180 set forth []7. in 1.17(p) [see items 2 and 3 above]. Please charge this fee and any other fees associated with this application to Deposit Account No. 50-1059. (Please note, no fee is required for items 2 and 3 above if the Item 6 statement is provided).
- Please charge this fee and any other fees associated with this application to Deposit []8. Account No. 50-1059.

Respectfully submitted,

Reg. No. 46,401

PTO/SB/08a (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

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Substitute for form 1449A/PTO				Complete if Known			
				Application Number			
INFC	RMATI	ON DIS	SCLOSURE	Filing Date	January 23, 2004		
STATEMENT BY APPLICANT				First Named Inventor	LOPRETE		
-				Art Unit	n/a		
	(use as man	ny sheets a	s necessary)	Examiner Name	n/a		
Sheet	1	of	2	Attorney Docket Number	20711-0036		

	U.S. PATENT DOCUMENTS							
Examiner Initials *	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Releventer			
muais	NU.	Number - Kind Code ² (if known)			Figures Appear			
	A	US-6,499,504 B2	12-31-2002	Wichert				
	В	US- 6,447,274 B1	09-10-2002	Horihata et al.				
	С	US- 6,439,864 B1	08-27-2002	Shaffer				
	D	US- 6,290,477 B1	09-18-2001	Gigon				
· · · · · · · · · · · · · · · · · · ·	E	US- 6,267,572 B1	07-31-2001	Suefuji et al.				
	F	US- 6,116,875	09-12-2000	Kolb et al.				
	G	US- 6,050,792	04-18-2000	Shaffer				
	н	US- 5,951,268	09-14-1999	Pottier et al.				
	T	US- 5,855,473	01-05-1999	Liepert				
	J	US- 5,788,470	08-04-1998	Okuda et al.				
	К	US- 5,314,318	05-24-1994	Hata et al.				
	Ļ	US- 5,309,728	05-10-1994	Chae				
	М	US- 5,304,047	04-19-1994	Shibamoto				
	N	US- 4,951,475	08-28-1990	Alsenz				
	0	US- 4,633,672	01-06-1987	Persem et al.				
	Р	US- 4,580,947	04-08-1986	Shibata et al.				
	Q	US- 4,535,602	08-20-1985	Alsenz et al.				
	R	US- 4,501,125	02-26-1985	Han				
•	S	US- 4,384,462	05-24-1983	Overman et al.				
	Т	US- 3,802,809	04-09-1974	Vulliez				

FOREIGN PATENT DOCUMENTS Foreign Patent Document Name of Patentes or Pages, Columns, Lines,						
Examiner Initials*	Cite No. ¹	Country Code ³ - Number ⁴ - Kind Code ⁶ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T⁵
	U	JP 2000-205151	07-25- 2000	Air Squared Inc.	·	
	٧	JP 9-170577	06-30- 1997	Nakajima Toshiyuki		
	W	JP 9-72285	03-18- 1997	Anest Iwata Corp.		

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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20711-0036

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Substitute for form 1449A/PTO

Complete if Known

Application Number

Filing Date

Filing Date

January 23, 2004

First Named Inventor

LOPRETE

Art Unit

n/a

(use as many sheets as necessary)

Examiner Name

n/a

Attorney Docket Number

Sheet

of 2

	U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevar		
Initials *		Number - Kind Code ² (if known)	MM-DD-YYYY	Cited Document	Passages or Relevant Figures Appear		
	Х	US-2002/0159904 A1	10-31-2002	Ebara et al.			
	Y	US- 2002/0131882 A1	09-19-2002	Kimura et al.			
-	Z	US- 2002/0114720 A1	08-22-2002	Itoh et al.			
	AA	US- 2001/0043877 A1	11-22-2001	lizuka			
	AB	US- 2001/0002981 A1	06-07-2001	Gannaway			
		US-					
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	0.11	Foreign Patent Document	2.1	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
Examiner Initials*	Cite No. ¹	Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY			T⁵
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Examiner Signature	Date Considered	

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.